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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,691	08/21/2001	Nobuaki Ema	10830-074001	6398
26211	7590	03/02/2004	EXAMINER	
FISH & RICHARDSON P.C. 45 ROCKEFELLER PLAZA, SUITE 2800 NEW YORK, NY 10111			STOCK JR, GORDON J	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,691

Applicant(s)

EMA, NOBUAKI

Examiner

Gordon J Stock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. **Claims 1 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's disclosure of prior related art in view of **Cho et al. (5,265,177)** and **Feldman (5,159,473)** further in view of **Alexander et al. (5,986,782)** and **Beller et al. (6,067,150)**.

As to **claim 1**, the applicant's disclosure teaches prior art apparatus comprising: a measurement unit for measuring an optical output signal output from the optical component (Fig. 3, **104** and **106** of applicant's disclosure); a first optical fiber which is connected to an input terminal of the optical component under test and inputs the measurement optical signal to the optical component (Fig. 3, **102** of applicant's disclosure); a second optical fiber which is connected to an output terminal of the optical component under test and transfers, to the measurement unit, an optical output signal output from the optical component under test (Fig. 3, **103** of applicant's disclosure); a position controller for adjusting relative positions between the first optical fiber, second optical fiber, and connective sections of the optical component such that insertion loss becomes a minimum (page 2 of applicant's disclosure). Applicant's disclosure is silent concerning the positioning to a maximum signal but discloses in prior art that there is positioning until insertion loss is minimized. However, Cho in an optical package for coupling optical fibers and Feldman in an apparatus for optical interconnections teaches that insertion loss is directly proportional to signal to noise (Cho: col. 2, lines 7-10; Feldman: col. 8, lines 65-68). Therefore, it would be obvious to one skilled in the art at the time to adjust the positions until the

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signal becomes a maximum because connections are adjusted until minimum insertion loss occurs which is equivalent to having a maximum signal transfer achieved.

In addition, applicant's disclosure teaches the optical component has a plurality of output terminals and measurement equipment (power meters) (page 3; lines 1-6 of applicant's disclosure). Applicant's disclosure of prior related art is silent concerning a plurality of photodetectors. However, Beller in an optical component measurement system teaches that insertion loss is wavelength dependent (col. 1, lines 15-25) and Alexander in a signal to noise monitoring system teaches a plurality of detectors such as in certain spectral analyzers or as combinations of devices such as spectrometers to measure signal to noise in a optical communications system (col. 4, lines 30-60). Therefore, it would be obvious to one skilled in the art at the time the invention was made to have the system comprise a plurality of detectors in order to detect wavelength dependent signal to noise that corresponds to insertion loss. As for a plurality of output terminals coupled to photodetectors via second optical fibers, Examiner takes Official Notice that optical fibers are well known in the art for optical coupling. It would be obvious to one skilled in the art at the time the invention was made to have the output terminals of the component under test be connected to the photodetectors via fiber coupling in order to transmit the optical signal from the component to the photodetector.

As for display units, Alexander in Fig. 3 and Beller in Figs. 1b, 3a, 3b, 4a, 4b suggest display units. Therefore, it would be obvious to one skilled in the art at the time the invention was made to have the system comprise a display unit in order to display the results of the measurements.

As for switches, Alexander discloses switches to go between channels (col. 4, lines 30-60).

As to **claim 5**, the applicant's disclosure teaches a prior related art method comprising: inputting a measurement optical signal to the optical component under test by way of a first optical fiber connected to an input terminal of the optical component under test; transmitting an optical signal output from the measurement optical component by way of a second optical fiber connected to an output terminal of the optical component under test; measuring an optical output signal output from the optical component under test on the basis of the optical output signal transmitted by way of the second optical fiber; adjusting relative positions between the first and second optical fibers and connections of the optical component under test such that insertion loss is minimized (Fig. 3 and page 2 of applicant's disclosure). Applicant's disclosure is silent concerning the positioning to a maximum signal but discloses in prior art that there is positioning until insertion loss is minimized. However, Cho in an optical package for coupling optical fibers and Feldman in an apparatus for optical interconnections teaches that insertion loss is directly proportional to signal to noise (Cho: col. 2, lines 7-10; Feldman: col. 8, lines 65-68). Therefore, it would be obvious to one skilled in the art at the time to adjust the positions until the signal becomes a maximum because connections are adjusted until minimum insertion loss occurs which is equivalent to having a maximum signal transfer achieved.

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As for switches, Alexander discloses switches to go between channels (col. 4, lines 30-60).

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 5,090,802 to Longhurst

U.S. Patent 6,175,675 to Lee et al.

U.S. Patent 6,177,985 to Bloom

Fax/Telephone Numbers

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and

2) Should be unsigned by the attorney or agent.

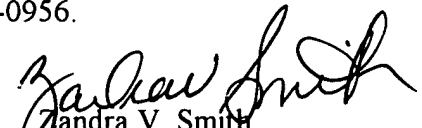
This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (703) 872-9306

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431. The examiner can normally be reached on Monday-Friday, 8:00 a.m. - 4:30 p.m.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

gs
February 13, 2004


Zandra V. Smith
Primary Examiner
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